

April 23, 2009

## **CALIFORNIA SWINE INFLUENZA HEALTH ALERT**

- As of April 23, 2009, five California residents (three children and two adults) have been diagnosed with swine influenza A (H1N1) virus infection. Three are residents of San Diego County and two are residents of Imperial County. There are no known links between these patients, no known common exposures and no known pig exposure. Four patients had self-limited influenza-like illness; one was patient with underlying autoimmune disease was hospitalized. All have recovered.
- The viruses from the five cases are closely related genetically and contain a unique combination of gene segments that have not previously been reported in the United States or elsewhere. The viruses in the first two patients are susceptible to oseltamivir and zanamivir, but resistant to amantadine and rimantadine. Antiviral susceptibility on viruses from the additional three cases is pending, but is anticipated to be the same.
- Swine influenza (swine flu) is an endemic respiratory disease of pigs caused by type A influenza virus, typically H1N1 and H3N2 strains.
- Swine flu viruses do not normally infect humans. However, sporadic human infections with swine flu do occur. Since 2005, 12 human cases of swine flu have been detected in other parts of the United States; all patients recovered.
- Most commonly, these cases occur in persons with direct exposure to pigs (e.g., workers in the swine industry). Although it has been documented, human-to-human transmission of swine flu is rare. However, the current situation in California suggests that human-to-human transmission may be occurring.
- Seasonal human influenza vaccine usually does not protect against swine influenza A H1N1 viruses, which are very different in their antigens from human H1N1 viruses.

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### **Heightened Surveillance For Possible Swine Influenza**

- Because of concern about possible human-to-human transmission of swine flu in California, enhanced statewide influenza surveillance is necessary to identify additional cases that may be occurring.
- Until otherwise notified, we ask that specimens be collected from patients who meet the definition for influenza-like illness (ILI) and are hospitalized in California for undiagnosed acute respiratory illness or suspect or confirmed influenza.
  - Fever  $>37.8^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) and a cough and/or sore throat.
- As resources permit, we also ask that influenza sentinel surveillance providers and emergency room clinicians in California collect specimens from outpatients who meet the definition for influenza-like illness above.
- Specimen collection: Please collect up to 2 nasopharyngeal or throat swabs from each patient with ILI, placing the swabs in a standard container with 2-3 ml of viral transport media. If the patient is hospitalized with pneumonia, specimens from the lower respiratory tract (e.g., tracheal aspirate, bronchoalveolar lavage) should also be obtained. Specimens should be collected within the first 24-72 hours of onset of symptoms and no later than 5 days after onset of symptoms.
- Specimen storage: The specimens should be kept refrigerated at  $4^{\circ}\text{C}$  and sent on cold packs if they can be received by a public health laboratory within five days of the collection date. If samples will be received by the laboratory in five or more days from collection, they should be frozen at  $-70^{\circ}\text{C}$  or below and shipped on dry ice.
- Primary specimens from the patient should be shipped to the local public health laboratory unless other arrangements are made.

### **Infection Control Precautions**

Healthcare workers providing care for patients with influenza-like illness who are not known contacts of a laboratory-confirmed swine flu case should use droplet precautions (i.e., wear a surgical or procedure mask for close contact), in addition to standard precautions. Standard precautions include hand hygiene and the use of eye protection if splashing or spraying of blood or body fluids (including respiratory secretions) is anticipated.\*

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- Healthcare workers providing care for a laboratory-confirmed swine flu case or an ill close contact of a laboratory-confirmed swine flu case should:
  - 1) Wear a fit-tested N95 respirator, disposable gloves, gown, and eye protection (face shield or goggles).
  - 2) Before and after contact with the patient, clean hands thoroughly with soap and water or an alcohol-based hand gel.
- Suspect swine flu patients (ill close contact of a laboratory-confirmed swine flu case) should be asked to don a surgical mask and should be roomed promptly in an airborne infection isolation room, if available, or in a single room with a door that closes.
- Public health staff interviewing or collecting specimens\* from an infectious case (the infectious period is defined as one day prior to symptom onset to seven days after symptom onset) or ill contacts of cases should follow the same infection control precautions recommended above for healthcare workers.

\*Splashing or spraying of body fluids may be anticipated when collecting a nasopharyngeal or throat swab.

For additional information about swine flu, please see:

<http://www.cdph.ca.gov/HealthInfo/discond/Pages/SwineInfluenza.aspx>